

PENDING CLAIMS

1. (previously presented) A method for connecting Ethernet Computer Enclosure Services (CES) devices, wherein a CES device is a system for providing monitor, control and diagnostic services in a computer, said method comprising:

connecting in an Ethernet computer network a master computer to a slave computer; assigning, by a master CES device in said master computer, a physical address to a slave CES node in said slave computer; and

assigning, by said master CES device, a unique Internet Protocol (IP) address to said slave CES node such that said master CES device manages said IP address assignment of said slave CES node, wherein said assigning of a unique IP address to said slave CES node is performed under a control of only a User Datagram Protocol (UDP) stack, said UDP stack being under an exclusive control of a System Power Control Network (SPCN) application, wherein said SPCN application performs critical checks of said slave CES node before powering up said slave CES node to avoid damaging said CES node through an application of incorrect voltages, and wherein said SPCN application sends a UDP/IP message to said slave CES node from said CES master device by directly opening an Ethernet port in said CES master device without using an intermediate IP socket.

2. (original) The method of claim 1, wherein said master computer initiates all communications between said master computer and said slave computer.

3. (original) The method of claim 1, further comprising connecting said master computer and said slave computer in an Ethernet string topology.

4. (original) The method of claim 1, further comprising connecting said master computer and said slave computer in an Ethernet ring topology.

5. (original) The method of claim 1, further comprising transmitting a signal between said master computer and said slave computer by selectively directing said signal to either a

transmission control protocol (TCP) socket or a user datagram protocol (UDP) port on said master computer and said slave computer.

6. (original) The method of claim 1, further comprising:

connecting an intermediate slave computer between said master computer and said slave computer, said intermediate slave computer comprising a software application layer hierarchically above an Ethernet software layer; and

bypassing said application layer in said intermediate slave computer when sending a signal to a subsequent slave computer by enabling a forwarding command in said Ethernet software layer when said signal is not addressed to said intermediate slave computer.

7. (original) The method of claim 1, further comprising storing said IP address in an Address Resolution Protocol (ARP) table in said master computer.

8. (previously presented) An Ethernet network having a master computer and at least one slave computer, said network comprising:

means for connecting the master computer and the at least one slave computer;

means for assigning, by a master Computer Enclosure Services (CES) device in the master computer, a physical address to a slave CES node in each of said at least one slave computer; and

means for assigning, by the master CES device, a unique Internet Protocol (IP) address to each CES node of said at least one slave computers, such that said master CES device manages said IP address assignment of each said CES node in said at least one slave computers, wherein said assigning of a unique IP address to said slave CES node is performed under a control of only a User Datagram Protocol (UDP) stack, said UDP stack being under an exclusive control of a System Power Control Network (SPCN) application, wherein said SPCN application performs critical checks of said slave CES node before powering up said slave CES node to avoid damaging said CES node through an application of incorrect voltages, and wherein said SPCN application sends a UDP/IP message to said slave CES node from said CES master device by directly opening an Ethernet port in said CES master device without using an intermediate IP socket..

9. (original) The network of claim 8, wherein the master computer initiates all communications between the master computer and said at least one slave computer.

10. (original) The network of claim 8, further comprising means for connecting the master computer and the at least one slave computer in an Ethernet string topology.

11. (original) The network of claim 8, further comprising means for connecting the master computer and the at least one slave computer in an Ethernet ring topology.

12. (original) The network of claim 8, further comprising means for transmitting a signal between the master computer and the at least one slave computer by selectively directing said signal to either a transmission control protocol (TCP) socket or a user datagram protocol (UDP) port on the master computer and the at least one slave computer.

13. (original) The network of claim 8, further comprising:

means for connecting an intermediate slave computer between the master computer and the at least one slave computer, said intermediate slave computer comprising a software application layer hierarchically above an Ethernet software layer; and

bypassing said application layer in said intermediate slave computer when sending a signal to a subsequent slave computer by enabling a forwarding command in said Ethernet software layer when said signal is not addressed to said intermediate slave computer.

14. (original) The network of claim 8, further comprising means for storing said unique IP address in an Address Resolution Protocol (ARP) table in the master computer.

15-20. (cancelled)

21. (previously presented) A method for assigning Internet Protocol addresses to nodes in a computer network, the method comprising:

connecting, in a computer network, a master node to a ring of slave nodes;

assigning, by the master node, a physical address to each of the slave nodes, wherein the physical address describes a physical topological location of a slave node in the ring; and

assigning, by the master node, a unique Internet Protocol (IP) address to each of the slave nodes, wherein each IP address for a specific slave node contains a value in an IP field, and wherein the value in the IP field is the same as the physical address of that specific slave node.

22. (previously presented) The method of claim 21, wherein the step of assigning, by the master node, a unique IP address to each of the slave nodes further comprises:

sending, by the master node, a first IP address assignment message to a first slave node in the ring of slave nodes, wherein the first IP address assignment message is sent to a first default IP address stored in the first slave node by a manufacturer of the first slave node;

changing an IP address of the first slave node according to the first IP address assignment message;

sending, by the master node, a second IP address assignment message to a second slave node in the computer network, wherein the second IP address assignment message is sent to a second default IP address stored in the second slave node by a manufacturer of the second slave node, and wherein the second default IP address is the same IP address as the first default IP address; and

changing an IP address of the second slave node according to the second IP address assignment message.

23. (previously presented) The method of claim 22, wherein the IP address assignment messages are sent via Ethernet ports in the slave nodes, and wherein the Ethernet ports communicate via an Ethernet stack, and wherein the Ethernet stack communicates only between the Ethernet ports and an IP stack, and wherein the IP stack communicates only between the Ethernet stack and a User Datagram Protocol (UDP) layer, and wherein the UDP layer communicates solely between the IP stack and a System Power Control Network (SPCN) layer, and wherein the SPCN layer communicates solely between the UDP layer and an Operating System (OS) of a node.